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ABSTRACT

Study skills are not specific to reading and cannot be developed by reading and more reading. A study skill is a mental technique to use when accomplishing a specific task or solving a given problem and is one element in a process essential for efficient and effective reading. Students who lack basic study skills can be taught to think if situations are developed which require thinking. One way to stimulate thinking is through the use of cognitive centers, a provocative setting generated by activities and/or materials presented in a manner to stimulate a small number of students to engage in the exchange of opinions for the purpose of developing proficiency in prestated study skills. Examples are given of using the cognitive center approach to provide students with the study skill abilities to discover the basic structure in a system, to see relationships, and to evaluate situations or information. (TO)

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Using Cognitive Centers to Develop Effective Study Skills

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Study skills are not specific to reading. Thus, one does not need to read to apply study skills. They are not a product of reading; they are elements in a process essential for efficient and effective reading. Since reading requires a hierarchy of skills with study skills being foundational in that hierarchy, it is appropriate to ask: can practice of skills higher in a hierarchy develop foundational skills in it? Does such practice just yield simulative products due to missing elements essential for yielding the real thing?

Study skills cannot be developed by reading, reading and more reading. This conclusion calls for a definition of reading. Yet, there are so many definitions one hesitates to add one more since the plethora of reading definitions has done little toward solving

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the problems besetting students who lack the mental discipline required for thinking. Perhaps two antipodal definitions of reading will help to clarify the perspective reading has in the thesis that it, reading, cannot develop study skills. Elkonin (1973, p. 32), states that:

> Reading is a creation of the sound form of the word on the basis of its graphic representation. Therefore, a good reader is one who knows how to create the correct sound form not only of a known word but also of any unknown word.

Furthermore, he asserts,

> Despite the fact that people often advance the comprehension of a word as a criterion of its correct reading, nevertheless, understanding is not an essential part of the process of reading.

Thus, Elkonin specifically excludes comprehension from his definition of reading, which he states formally as follows:

> Reading is the creation of the sound form of the word according to its graphic model (1973, p. 59).

Spencer's (1973, p. 15) definition of reading stresses neurological and cognitive processes. He states:

> Reading behavior consists of the process of making discriminative responses with regard for any and all types of stimulation.

He also explained:

> Every reading activity has four sequentially interrelated stages: (1) an activating stimulus situation, (2) a sensory reception stage, (3) a perceptual stage, and (4) a stage in which the adaptive response is consumated . . .

Reading behavior as defined by Elkonin cannot develop study skills. Reading behavior as defined by Spencer could develop study skills. Unfortunately, a book too often stimulates Elkonin's description of reading. Books have been used to condition

students to emphasize "the creation of the sound form of the word according to its graphic model." When a student has done this, he feels he has consummated the reading act. It is a sterile consummation. Thus, reading as practiced by the majority of students cannot develop study skills. Therefore, printed stimuli hinder thinking.

Students who lack basic study skills should respond to tasks not dependent upon reading. Such tasks must be in settings where students stimulate each other to think. Thinking skills like language skills develop more rapidly in dialogues. Too often, reading fails to develop a dialogue which is essential for learning.

The use of cognitive centers is one way to create environments where students cause each other to think. A cognitive center is a provocative setting generated by activities and/or materials presented in a manner to stimulate a small number of students to engage in the exchange of opinions for the purpose of developing proficiency in pre-stated study skills. A study skill is a mental technique to use when accomplishing a specific task or solving a given problem. The mental technique is shaped by two factors: (1) intellectual predisposition which require the mind to function in a prescribed manner when acting to accomplish a task or solve a problem, and (2) the nature or quality of the substance in the task or problem.

One study skill students lack is the ability to do an analysis to discover the basic structure in a system. The gestalt or whole of a structure blocks or inhibits their creative power essential for learning. That is, they attempt to learn a whole without analyzing it. Such a task can be accomplished only by rote or memorization. For them, the whole is always greater than its parts. However, the parts are in reality greater than any one whole they may constitute at a given time. The parts of any whole contain the creative potential which may be synthesized into other forms having less or greater magnitude. Thus, the dialectical qualities of the parts make possible the generation of new thesis and/or anti-thesis which is impossible to occur in a frozen whole. Thus, man's ability to analyze and synthesize gives him the power of creativity. Students who focus only on the whole will not be creative; therefore, they will not learn. They will memorize.

There are far too many college students who cannot divide unfamiliar words into syllables because they have never analyzed words to discover their basic syllabic structure. When dividing words into syllables, they focus on the specifics of each word and seldom extend their attention to the general syllabic characteristics of all words. These students may be helped by working in small groups with consonant (C) - vowel (V) structures such as: C-V-C-C-V-C, V-C-V-C-C-V-C, C-C-V-C-C-C-V-C-V, etc., to discover how many different ways these theoretical sequences of sounds could be divided into syllables.

Another study skill students lack is the ability to see relationships. The kernels of all relationships are concepts. Students will learn a word as if it represents a whole concept. That is, they memorize it when they should determine how the word represents the concept and to what degree the concept is represented. For example, consider the word titantic. It suggests two concepts: size and power. The learner should ask: how much of these two concepts are represented by the word titantic. A dialogue develops in which occurs comparisons and contrasts. There are words in the English language to express to a greater or lesser degree the intensity of these concepts. Words expressing greater intensity for size are: huge, vast, gigantic, mammoth, titantic, immense, colossal, enormous. For power: strength, vigor, might, vitality, brawn. Words which express less intensity for size are: small, little, runt, pinch, tiny, minute, dwarf, pygmy, miniature. For power: weak, impotent, incapable, enervate, disable. The focus in vocabulary development should be on concepts. This gives students something to mentally work with.

Another study skill students lack is the ability to evaluate situations or information. One way to develop this skill is to ask a small number of students in groups to write a sentence on a particular topic or students may be given statements on a subject and asked to determine which sentences or statements indicate their writer knew more about the topic. For instance, on the topic of elephants, five students might write: (1) Wild elephants travel in herds of up to 100 or more. (2) Under favorable conditions, a few

elephants may live longer than sixty years. (3) Elephants are vegetarians. (4) The African Bush elephants are distinguished from the Indian elephant by larger tusks, arched foreheads, and larger ears. (5) Cow elephants do not mate until they have passed their eighteenth year. After they have written their statements, they should evaluate each to determine which statement indicates more knowledge about elephants.

Students can be taught to think if situations are developed which requires thinking. Cognitive centers are excellent environments for stimulating thinking.

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